

REMARKS

The Office Action mailed April 20, 2007, has been received and reviewed. Claims 1 through 9 are currently pending in the application. Claims 1 through 9 stand rejected. No claims have been amended. Applicants respectfully request reconsideration of the application with respect to the analysis presented herein.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 6,233,455 to Ramakrishna et al.

Claims 1, 2, 3, 8, and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,233,455 to Ramakrishna et al. (hereinafter “the Ramakrishna reference”). Applicants respectfully traverse this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, there must be “a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant’s disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

The 35 U.S.C. § 103(a) obviousness rejections of claims 1, 2, 3, 8, and 9 are improper because the elements for a *prima facie* case of obviousness are not met. Specifically, the rejection fails to meet the criterion that the prior art reference must teach or suggest all the claims limitations.

Applicants’ invention as presently claimed in independent claim 1 and independent claim 8

recites, in part, “*transmit[ting] a pilot strength measurement message ... at a first transmit power level ... and ... transmit[ting] the pilot strength measurement message ... at a second transmit power level ..., wherein the second transmit power level is greater than the first transmit power level*”.

In attempting to substantiate a rejection of Applicants’ invention as presently claimed, the Office Action alleges:

Regarding claim 1, Ramakrishna et al. disclose ...:

transmitting a pilot strength measurement message from a mobile terminal at *a first transmit power level (fig.2B, element 252, see col.5 lines 60-64); ... and* transmitting a pilot strength measurement message from a mobile terminal at a second *transmit power level determined by the mobile terminal, wherein the second transmit power level is greater than the first transmit power level (see fig. 2B, element 254).* (Final Office Action, p. 3; emphasis added). (Final Office Action, p. 3; emphasis added).

Regarding claim 8, Ramakrishna et al. disclose ... :

... to transmit a pilot strength measurement message from the mobile terminal at *a first transmit power level determined by the mobile terminal (see col. 8 lines 1-14);* ... to transmit the pilot strength measurement message from the mobile terminal at *a second transmit power level determined by the mobile terminal, wherein the second transmit power level is greater than the first transmit power level (see fig. 2B, element 254).* (Final Office Action, p. 4; emphasis added).

Upon closer inspection of the actual teachings or suggestions of Fig. 2B of the Ramakrishna reference, it becomes apparent that the increasing plotted line, P3, in Fig. 2B is a plotted line of a *received signal*, namely a pilot signal P3 *received at* the mobile station and *not* the alleged *transmitted signal* from the mobile station as alleged. Furthermore, the alleged elements 252 and 254 are superimposed in the time domain as being triggered according to *received* power levels of the pilot signal P3, and do not teach or suggest any *transmit* power levels of the respective *transmissions* of the pilot strength measurement message PSMM from the mobile station.

In support of Applicants’ argument, Applicants respectfully direct the Examiner to the following specific teachings of the Ramakrishna reference, namely:

A predetermined negative constant is utilized in soft hand-off mode to permit a new pilot signal to be added to an wireless phone’s active set. The negative constant is combined with the weakest pilot signal in the active set and then compared to the new pilot signal strength which allows the new pilot to trigger a Pilot Strength Measurement Message (PSMM) even when the new pilot signal is weaker than all

active set pilot signals . . . After initially **triggering a PSMM**, the next instance the new pilot may ordinarily **cause a PSMM to be triggered is when the new pilot signal exceeds the strongest active set pilot signal**. (Abstract; emphasis added).

If a handset ("mobile") detects a new pilot, not yet in communication with the mobile, whose pilot strength (carrier to total interference ratio) is above an upper signal strength threshold (T_ADD), it will send a Pilot Strength Measurement Message ("PSMM") to the network via the sector(s) base station with which it is currently communicating. (Col. 1, lines 61 – 66).

In order to reduce excessive messaging back and forth, the network may not send an HDM because the mobile would just resend the PSMM. **However, the network must acknowledge the PSMM to prevent the mobile from continuously sending the PSMM**. In such cases, the network acknowledges the PSMM with a Base Station Acknowledgement Order (BSAO), but doesn't send the HDM. This action prevents the mobile (standard action) from sending a PSMM requesting addition for this particular pilot again, until the pilot exceeds the strength of the current weakest active set pilot by a factor "T_COMP" (T_COMP is an assigned value for triggering a decision by the network to add a new channel to the active set. New pilot signals must exceed the weakest active set pilot signal plus T_COMP) . . . **As the new pilot exceeds T_COMP (plus weakest signal), a completely new PSMM will be triggered**. If the message is again ignored (BSAO sent, not HDM), then another PSMM will be sent only if this particular pilot exceeds the weakest pilot in the active set by T_COMP. (Col. 2, lines 23 – 43; emphasis added).

T_COMP should be set so that **a PSMM is triggered when the signal to noise ratio is such that the mobile would be dropped from the system because of too much interference**. Another way to add a new pilot is that if a current, active set pilot, P3, drops below T_Drop (a system specified arbitrary value) for a specified time period (T_TDROD), usually four seconds, **a PSMM is triggered**. (Col. 2, lines 54 – 60; emphasis added).

Referring to FIG. 2B, a graphical representation of a negative T_COMP method for improving handoff reliability in a preferred embodiment of the present invention . . . **Signal strength of P3, as received by a mobile, is illustrated as increasing over a period of time**. The first instance that PSMM may be sent is T_ADD, at -14 db 252. P3 would likely not be added to the active set of the mobile at this strength. As the signal increases in strength, requirement for P3 to be less than Delta_3 has been reached. Regularly, the next threshold to reach would be T_COMP 250. However, utilizing negative T_COMP 254, P3 may be added to the active set before becoming too strong and possibly causing the mobile to be dropped from the system. (Col. 5, lines 55 – 67; emphasis added).

Therefore, since the Ramakrishna reference does not teach or suggest all claim limitations of independent claims 1 and 8, namely *"transmit[ing] a pilot strength measurement message . . . at a first transmit power level . . . and . . . transmit[ing] the pilot strength measurement message . . . at*

second transmit power level ..., wherein the second transmit power level is greater than the first transmit power level”, the Ramakrishna reference cannot render obvious, under 35 U.S.C. §103, Applicants’ invention as presently claimed in independent claims 1 and 8. Accordingly, Applicants respectfully request the rejections of independent claims 1 and 8 be withdrawn.

The nonobviousness of independent claim 1 precludes a rejection of claims 2 and 3 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), see also MPEP § 2143.03. Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 1 and claims 2 and 3 which depend therefrom.

The nonobviousness of independent claim 8 precludes a rejection of claim 9 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. See In re Fine, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), see also MPEP § 2143.03. Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 8 and claim 9 which depends therefrom.

Obviousness Rejection Based on Ramakrishna in view of U.S. Patent No. 5,940,743 to Sunay et al.

Claims 4 through 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Ramakrishna reference in view of U.S. Patent No. 5,940,743 to Sunay et al. (hereinafter “the Sunay reference”). Applicants respectfully traverse this rejection, as hereinafter set forth.

Regarding independent claim 4, Applicants assert, for similar reasons as with claims 1 and 8, that the Ramakrishna reference does not teach or suggest all claim limitations, namely the limitations of “*transmitting a pilot strength measurement message* from the mobile terminal *at a first transmit power level* determined by the mobile terminal ... and *incrementing a transmit power level* from the mobile terminal *prior to receiving a hand-off direction message* and completion of the call recovery.”

The Sunay reference teaches:

The mobile station's output power is adjusted, according to the estimated power loss, to within an initial acceptable range. (Col. 9, lines 54-56).

As mobile station 114 moves within cell D in the direction of arrow 116 towards cell E, searcher receiver 210 of mobile station 114 measures the received signal strengths on the system pilot channels in the handoff candidate set and provides signal strength

measurement results to control processor 218. The handoff candidate set contains the pilots of system 100 that are received at a sufficient strength to indicate that they are handoff candidates and in this example includes the pilot channel of cell E or base station 110. When mobile station 114 is at a certain location on, or near, the borders of cells D and E, the candidate pilot channel from base station 110 will be received at a signal strength level that is a predetermined margin greater than the signal strength level received on the pilot channel of base station 108. At this point, control processor 218 generates a measurement message indicating the measurement results and the PN offset of the measured candidate pilot of base station 110. (Col. 9, line 60 through col. 10, line 11).

The process begins at step 402 of FIG. 4 as the measurement message generated in control processor 218 is transmitted from mobile station 114 to the current base station 108. (Col. 10, lines 11-14; emphasis added).

It appears that the process described by the Sunay reference does not disclose “*transmitting a pilot strength measurement message* from the mobile terminal *at a first transmit power level* determined by the mobile terminal ... and *incrementing a transmit power level* from the mobile terminal *prior to receiving a hand-off direction message* and completion of the call recovery” as claimed by Applicants in independent claim 4. While the Sunay reference teaches adjusting a transmission power level, the adjustment is done based off of information generated by the measurement message, and does not affect the power level of the pilot strength measurement message during call recovery. According to the teachings of the Sunay reference, if a second pilot strength measurement message were to be generated at a second power level, it could occur only after call recovery is completed and to begin a new call recovery process.

Therefore, since neither the Ramakrishna reference nor the Sunay reference teach or suggest Applicants’ claimed invention including “*transmitting a pilot strength measurement message* from the mobile terminal *at a first transmit power level* determined by the mobile terminal ... and *incrementing a transmit power level* from the mobile terminal *prior to receiving a hand-off direction message* and completion of the call recovery”, these references, either individually or in any proper combination, cannot render obvious, under 35 U.S.C. §103, Applicants’ invention as presently claimed in independent claim 4. Accordingly, Applicants respectfully request the rejection of independent claim 4 be withdrawn.

The nonobviousness of independent claim 4 precludes a rejection of claims 5 through 7 which depend therefrom because a dependent claim is obvious only if the independent claim from which it

depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 4 and claims 5 through 7 which depend therefrom.

Obviousness Rejection Based on the Ramakrishna reference in view of the Sunay reference and further in view of U.S. Patent No. 6,563,807 to Kim et al.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the Ramakrishna reference in view of the Sunay reference and further in view of U.S. Patent No. 6,563,807 to Kim et al. (hereinafter “the Kim reference”). Applicants respectfully traverse this rejection, as hereinafter set forth.

The nonobviousness of independent claim 4 precludes a rejection of claim 7 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicants request that the Examiner withdraw the rejection to independent claim 4 and claim 7 which depends therefrom.

CONCLUSION

Claims 1 through 9 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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